PRIMER OF DESIGN.

BY

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"Never lose an opportunity of seeing anything beautiful. Beauty is God's handwriting, — a wayside sacrament. Welcome it in every fair face, every fair sky, and every fair flower; and thank Him for it, the fountain of all loveliness. Drink it in, simply, earnestly, with all your eyes: 'tis a charmed draught, — a cup of blessing."

With Numerous Illustrations.

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TO MY FRIEND

Walter Smith,

STATE DIRECTOR OF ART-EDUCATION IN MASSACHUSETTS,

I Dedicate this Book,

IN TOKEN OF MY DEEP APPRECIATION OF HIS
DISTINGUISHED SERVICE AND
ABILITY

As an Art-Master.

C. A. B.

"A VERY little reflection must convince the most utilitarian, that, in an advanced stage of society, decoration enters so fully into all works of art, as to constitute, in perhaps a majority of cases, the greater part of their market value. We see the principle illustrated in the importance that is attached to surface-ornamentation in the manufacture of carpets and oil-cloths and matting and wall-paper and curtains; in printed cloths, and other articles designed for dress; in crochet and tapestry work; in the elegant forms required for vases, and all crockery and earthenware; alike in the fine sculpture of the most delicate ornaments and the chiselling of stone for public and private dwellings; in all mouldings of wood and iron, and other ornamental work in architecture: and it is found to enter into all plans and patterns of utensils and tools, and into all objects of art which may be deemed capable of improvement by giving to them increased beauty of form and proportion. Indeed, all the vast variety of form and color which we observe in the works of man, beyond the requirements of the most barren utility, is simply ornamentation."

PREFACE.

THE main purpose of this Primer is to give immediate aid to drawing-teachers, especially to those who are *officially* required by drawing-committees of school-boards to teach elementary design in public schools. Having long seen the necessity of a simple work on the subject, I have studied to make both the text and the illustrations of this book easily intelligible to every one, and in a manner particularly profitable to all who are desirous of storing the minds of pupils with sound doctrine. But it should be understood fully, that, in design, *principles* only can be taught; though much, in the way of giving inspiration to pupils who are expected to make original designs, can be done by good teachers. This production is but the faintest promise of some complete Manual of Design very likely to appear by and by.

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PRIMER OF DESIGN.

PRIMER OF DESIGN.

I. — INTRODUCTION.

1. If a snow-flake is placed under a microscope, it will be found that the elements composing the crystallized drop of water are arranged with marvellous regularity about a common centre; and if a flower, as the wild rose, is held in the hand, the same illustration of external symmetry will be seen in it. Both flower and flake, reader, are revelations of the everlasting geometry of the great Form-Worker of the Universe, in whom we have our being.

2. We are all lovers of symmetry, from the rudest savage to the most civilized man. The higher the culture, the greater the shrinking from things rough and unseemly, and the

more intense the desire for forms that give pleasure. We crave symmetry, and, through our love of it, find our way to the perception of geometric law, and, by that law, to the grasping of the things that make real our ideals.

II. — ORIGINAL COMPOSITIONS.

3. The original compositions expected from the pupils of public schools should be forms in that branch of ART-EDUCATION known as DECORATIVE DESIGN, whose laws have to deal with accessory or appended ornament, — with decorations belonging to principal forms, as *attachments;* and the work should be, in primary and grammar schools, elementary or educational, and, in high schools, industrial.

III. — WHAT IS MEANT BY INDUSTRIAL DESIGN.

4. In the year 1870, upon the evidence of many celebrated manufacturers and distinguished gentlemen of New England relative to the scarcity of good native designs and skilled artisans in America, the State of Massachusetts passed the now well-known Drawing Law, requiring drawing to be taught in all the public schools, and free instruction in industrial drawing to be given to all persons over fifteen years of age in cities and towns having more than ten thousand inhabitants.

5. Immediately after the passage of the law, the city of Boston established, through its School Board, the thoroughly well-organized system of drawing planned by

Professor Walter Smith. His scheme is now in successful operation, not only in Boston, but in many of the largest cities of the country.

6. This system of instruction in drawing is especially devoted to the industrial needs of the country; and its workings are constantly operating to improve industrial manufactures, to make skilful designers, and to diffuse a knowledge among the people of that kind of art-education which forms the basis of all industrial progress.

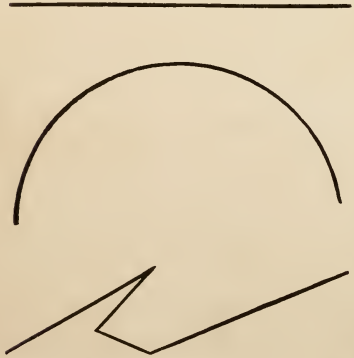
7. Seeing very little distinction, if any, between the so-called fine arts and industrial art, and knowing that the union in one person of the artist and artisan has always been productive of things most precious to men, I venture to say, that to be a designer — in the full sense of the word, as an art-worker — is to live close to the very kingdom of the beautiful, and in actual contact with every thing that is ennobling.

8. INDUSTRIAL DESIGN — or, to speak more generally, DECORATIVE DESIGN — is that which mostly points to GEOMETRY as its distinct foundation: therefore practical geometry should early enter into the work of pupils from whom original designs, as surface-decorations, are expected; because in practical geometry is found the law of all forms, the constructing framework of all ornament intended to add beauty to utility. This reliance of art-education upon geometry — the art-education contemplated by the law-makers as a measure to obtain for the State a new era of industrial development — cannot be too rigidly set forth, or too closely insisted upon.

9. Geometry, being essentially an *exact* science, requires the very greatest *accuracy* in work; and no teacher should expect good results in the study without insisting that all slovenliness and carelessness on the part of pupils should be avoided. The same ground should be gone over frequently, and every step in the construction of a problem should be exactly executed.

10. The intelligent teacher is, by a moment's thought, thoroughly convinced of the great value of practical geometry in the study of form. In pictorial delineation all the work of the hand and eye is limited to the use of points, lines, angles, triangles, squares, curves; and the endless combinations of these give rise to the things we daily see from Nature's vast sources of construction, or from the workshops of man.

11. Modes of matter are modes of occupation in space; and every mass which we call *body* is a union of surfaces composed of two — or, at the most, of *three* — elementary parts, in varying relations to each other. These simple elements are the straight line, the curved line, and the broken line. There are no other kinds of lines in nature; and with these the Almighty Designer has pro-



duced the myriad of shapes we see everywhere: therefore man, who can only imitate and re-arrange, must, in his work, use the same elements.

12. A reference to nature or art will show that the lowest class of bodies, standing as types of construction, is made up of figures compounded altogether of straight lines, such as the cube, pyramid, prism, &c.; that the next above in order, comprising the sphere, ovoid, ellipsoid, &c., is composed entirely of curved lines; and that the third class, comprising objects represented to the eye by both straight and curved lines, is illustrated by the cone, cylinder, &c. This last class is, by its nature, without fixed limits. The first method of formation — that developed by *straight* lines — is found in the mineral world; the second — that developed by *curved* lines — in the animal world; and the last — that developed by a *mixture* of straight and curved lines — in the vegetable kingdom. Every branch of industry must turn to these forms of nature as models for imitation.

13. All the resources to be found in the science of geometry, then, should be close to the thinking brain and skilful hands of a good designer.

IV. — COMPOSITION IN DESIGN.

14. The three ruling principles of composition in ornamental decoration are

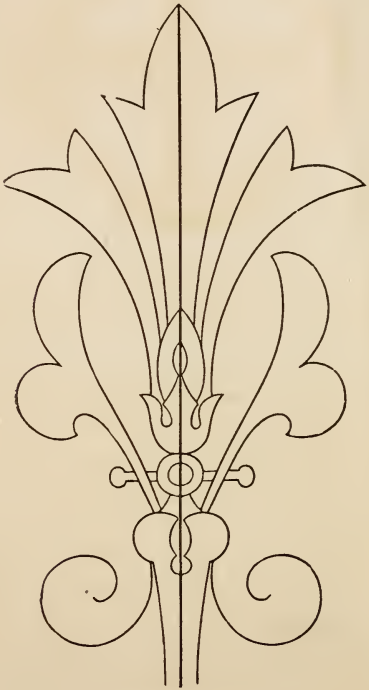
UNITY, SYMMETRY, CONTINUITY.

15. Unity is the assemblage of the separate portions of a design into ONE WHOLE: and the very first condition of a good design for decoration is, that it shall manifest in all its parts *intelligible relation* to the whole; i.e., all the parts of the design must be in such harmonious relation and keeping as to be easily recognized as complementary portions of the whole. To secure unity in a design, each part must be carefully studied, and nothing whatever introduced into the composition thoughtlessly. All confusion and contradiction must be avoided, and the proper correspondence of parts kept constantly before the mind as the chief thing to be desired. Unity, as an effect in the whole mass of a composition, may be completely preserved, though great variety in the details of a work is allowed, variation in details being a legitimate means of imparting beauty to a design.

16. Symmetry — following the relation of parts to the whole — is the relation of parts to each other. This principle requires that the same dimensions adopted for one member shall be adopted for every other like member; that individual parts belonging to the same whole must have a perfect likeness to each other. For instance, if the whole consists of parts identical each with the other, each part ought to form the half of the whole. To simplify this, let me state that

Symmetry is a perfect equality of form on either side of a straight line, opposite parts equally balancing each other.

Symmetry in Nature.



Symmetry in Art.

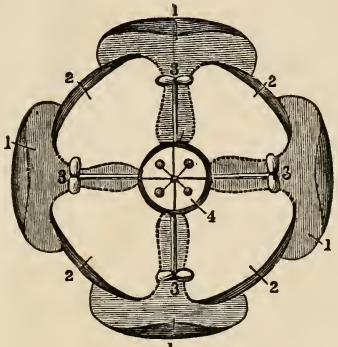


Diagram of a perfect symmetrical flower, showing the various circles or parts alternating with each other. The outer circle, or whorl, the calyx, 1; the next circle, its parts alternating with those of the calyx, the corolla, 2; within that, the stamens, 3; and, occupying the centre of all, the pistil, 4.

17. Continuity is the identification of each part of a design, symmetrical or unsymmetrical, with another part, and with the whole. A bond of union of parts must exist, and be made clearly manifest, in such a way, that not only one part, but all, shall be seen to be harmoniously united to form a whole. Continuity in a design means uninterrupted pleasing connection of parts, differing in shapes. It is distinguished from unity in this respect: unity requires *subordination* of parts to a whole. As continuity in a composition means the orderly succession of parts differing in shape, if this principle is violated, unity is broken. Turner, in one of his best pictures, — "The Old Bridge at Coblentz," — adhered strictly to the law of continuity.

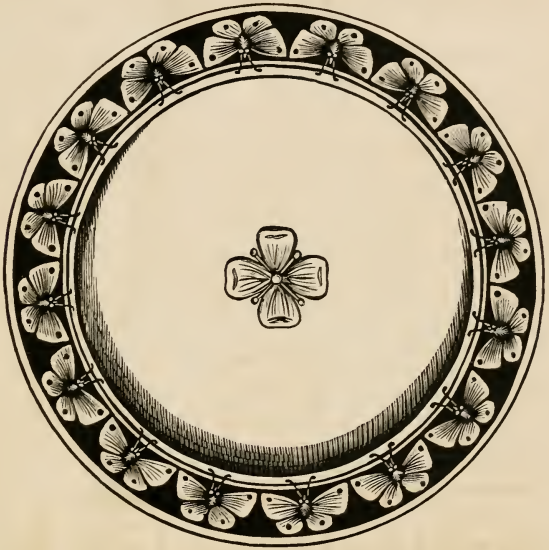
V. — THE LAW OF REPETITION.

18. Closely allied to the great law of symmetry in decorative design is the law of repetition, which requires the *orderly succession* of parts in a composition. Any form, no matter how insignificant it may be in itself, becomes at once pleasing to the eye by orderly repetition, — by constantly appearing at equal distances. The straight lines forming the ornament known as the "Greek fret" become at once interesting by the orderly

Fig. 1.

repetition of Fig. 1. The regular arrangement of the butterfly on the rim of the plate (page 29) gives instant delight to the mind.

19. Repetition in design appears constantly in the ornamental works of nature, and is universally adopted in decorative art. It commends itself to manufacturers particularly, because the unit of design can be multiplied an endless number of times at little cost.



The principle is very largely introduced in designs for paper-hangings, muslins, calicos, &c., &c.

VI. — THE LAW OF ALTERNATION.

20. Alternation is the succession of different objects appearing regularly in turn. It is the union of repetition and variety. The principle is clearly seen in the favorite Greek moulding, "*egg and dart*," in which

two dissimilar forms are brought together, each by contrast heightening the effect of the other. It is also seen in the beautiful conventionalized honeysuckle and lily forming this border, taken from a Greek vase : —

21. The highest *degree* of alternation is contrast; but contrast should never be used in a design unless it makes the whole composition *more* beautiful. Con-

trast, as a principle of decorative design, should always be subordinate to the laws that give harmony and strength to ornament. The law is manifested when a curved line is set off by a straight one, a large form by a small one, &c., &c. A group of uninteresting forms in a design, by the introduction among them of a few well-chosen shapes, may be made at once valuable and interesting ones. The principle of contrast is well illustrated in this design for a glass window.

VII. — THE LAW OF RADIATION.

22. Radiation is accessory to symmetry, but differs from it in this particular: forms disposed symmetrically upon a straight line must, in a radiating body, spring

Radiation in Nature

Radiation in Art.

from a common centre. The principle of radiation is everywhere manifest, both in nature and art, — from the web of the spider, which is a tissue of radiating threads, to the most complicated radiating ornament ever invented.

VIII. — THE LAW OF PROPORTION.

23. Beauty of proportion should be constantly considered in the making of a design. This is a perfect harmony of the whole with any of its parts. An original composition is beautiful in its proportions when all its members keep definite relations of beauty to each other and to the whole. The proper balance of straight lines, and the graceful arrangement of curved ones, must enter into the thought of the designer, and be kept constantly in mind, if he wishes to make a system of linear harmony that will give pleasure to the eye.

24. Proportion in a design is the comparative relation of lines to each other in respect to character, size, quantity, movement, and harmonic value. The law of proportion is often mathematically stated, and has been very carefully illustrated by the use of numbers. As far as it concerns elementary design, a familiar illustration of its application will be of greater practical value to teacher and student than a complicated and theoretical demonstration. The more subtle a curve is, the more beautiful it is. This beauty is produced on account of the proportion existing between the parts of a straight line on which it can be imagined that it was

constructed. Suppose two straight lines, each one inch long, mutually bisect each other at right angles: the curved line naturally constructed through their four extremities is the circumference of a circle which lacks beauty. But take the same lines, and divide each into the number of parts by means of which a *spiral* can be constructed, and the curve so made is *not* lacking in beauty.

25. The spiral of Archimedes, of the greatest value in ornamental design, fully illustrates the law of proportion and subtlety.

IX. — MATERIALS FOR DESIGNS.

26. Having briefly considered some of the leading principles of decorative design, I now turn the attention of the reader to a consideration of the use of natural and other forms as materials for construction in ornamental art. In nearly all the periods of ornamentation men have gone directly to Nature for the means of producing valuable decorations; and the amazing richness and variety of her treasures, particularly in the vegetable world, constantly offer to the designer things admirably adapted for art-treatment. From the study of natural forms, particularly from those of the vegetable world, the general laws of decorative design were derived; and the best decorators of this present time are

they who lovingly meditate upon Nature's works, and enlarge their artistic perceptions by using even the simplest things from her inexhaustible treasury.

27. Next in importance to the study of natural forms comes the study of historical ornament; and I recommend for that purpose the very valuable selection of characteristic examples arranged under the superintendence of Professor William R. Ware, of the Massachusetts Institute of Technology.

28. Finally, materials for elementary designs can be obtained from numberless sources in homes and highways; and note-books or tracing-paper should always be ready to preserve them as they offer themselves to the eye. The author desires it to be understood, in this connection, that parts of designs found upon books, music-sheets, diplomas, wall-papers, &c., are often very valuable to a designer of new decorations. When such parts are found by pupils who are working on designs, they may be appropriated and used without being redrawn, if they can be applied successfully by tracing-paper; *provided* they are approved of by the teacher.

X. — METHODS OF CONSTRUCTION IN DESIGN.

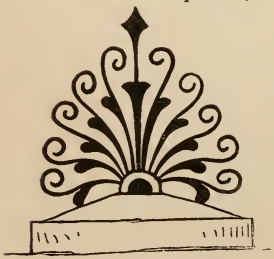
29. An ornamental composition may be —

BI-SYMMETRICAL (*two parts*),

TRI-SYMMETRICAL (*three parts*),

or

MULTI-SYMMETRICAL (*more than three parts*).



It may have its PARTS ARRANGED LIKE A FAN, radiating from a point; or they may be constructed as the parts of a

natural vine are, but conventionally disposed, with a continuous and regular movement.

30. Bi-symmetrical ornaments should always be intended for vertical positions, as in the case of designs for wall-papers, curtains, door-panels, &c.

31. Tri-symmetrical ornaments are not in common use. They may be placed where they can best display their beauty.

32. Multi-symmetrical ornaments, because they look equally well from all points of view, are adapted to oil-cloths, carpets, table-covers, bed-spreads, &c. They can also be used upon a wall or other vertical surface without offending the eye.

33. Radiating ornaments, in which the parts radiate from a point and spread out like a fan, should not be used upon horizontal surfaces, and, when in position, should usually have their parts pointing upward.

34. Designs constructed upon the vine arrangement should be rhythmical; that is, the same features should regularly repeat themselves as the leaves and flowers do upon a natural vine.

35. An ornamental composition may be PROGRES-

SIVE; i.e., it may, by the increasing and decreasing progression of a single figure, become suitable for pyramidal surfaces.

36. In high grades of ornamentation, not of course noticed in this simple elementary book, examples of decoration are found in which the parts enclosed in the geometrical form are not symmetrical; but the enclosing form which determines the outline of the whole is *always* a symmetrical figure.

RULES FOR ELEMENTARY DESIGN.

XI. — RULES.

A. The original compositions intended for surface-decoration should be enclosed in regular geometrical figures.

B. In elementary design, perspective effects of flowers, leaves, buds, or other objects, must be used very sparingly, as many good surface-decorators reject them altogether.

C. Flowers must not project from the tops of leaves and buds; leaves or buds should not appear to spring from the tops of flowers. They should all be drawn, as far as possible, in the order of their natural growth, from stems or roots, so as to give unity to the design.

D. No stem should proceed from the corolla of a flower, but should be drawn, even if it is covered by other parts of the design, so as to be

easily traced to its starting-point in some other and larger stem.

E. No part of a design should ever be left floating as it were in space (unless the design is one for the commonest wall-paper or a cheap tile), but should have its proper attachment to the main body of the design.

F. Two-thirds of the ground enclosed in the geometrical form should be devoted to the design, and no part of the design should ever extend beyond its geometrical border.

G. No stem should ever be twisted about a flower, a bud, or a leaf; and stems should not be split to allow other stems to pass through them.

H. Stems should not proceed far without interruption, and there should not be too many of them in a design.

I. The leading lines of support to elements should be clearly defined. *Pictorial* representations of stars, flags, &c., must never form a part of an elementary design.

J. Details should be of such a size as not to appear finical and confused, and border-lines of all similar figures in the ornamental construction should be of the same tint and thickness.

K. Interlacing bands should alternately rise above and pass beneath each other, and no representation of carved scroll-work should ever be introduced into any elementary design.

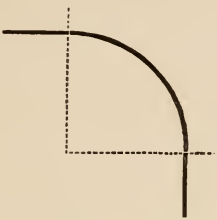
L. A plain border of one or two dark lines, a simple fret, a ribbon of overlapping leaves, or a repetition of a snow-crystal or of some simple geometrical figure, is all that should be allowed to enclose an elementary design ; and no name, or initials of a name (unless they happen to be symmetrical letters, —

A H M O T U V W X Y)

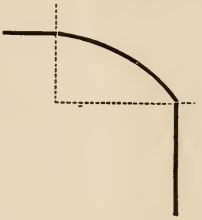
should ever be placed in any part of the ornament designed.

M. Junctions of curved lines, or of curved lines with straight ones, should be tangential to

each other; and curved lines passing into straight ones should pass into them harmoniously.



Correct, — harmonic.



Wrong, — inharmonic.

N. If wholes or parts of natural forms, flowers, leaves, buds, &c., are taken as elements, they must be treated more or less conventionally; but every thing that contradicts laws of growth — such as the combination of the leaves of one plant with the flowers of another — should be strictly avoided.

NOTE. — Flowers, leaves, and buds are treated conventionally when their *general* forms only are imitated: when they are made symmetrical, minute irregularities of outline are omitted.

Natural leaf, Ivy.

Same leaf conventionalized.

O. Forms must not be too small in proportion to the ground to be covered, and any arrangement of lines like embroidery should be avoided.

P. If half-tint is used to separate the ornament from the back-ground, either upon the back-ground or the ornament, the lines producing the tint should not be too near together; and it is best that they be drawn either horizontally or vertically.

Q. Leaves may overlap each other; but the parts of leaf-outlines hidden by overlapping leaves must not be represented in any way.

R. All construction-lines in a design should be drawn very faintly, excepting those selected to be axes of units of design: these should be *distinctly* but not heavily made.

S. All shading of forms in elementary design is entirely out of place, and any use of *colored* crayons is altogether *wrong*.

T. Devices selected for centres of designs should be small in proportion to the whole space

to be covered: for example, in a square having sides of five inches, the central figure ought not to be more than one inch in diameter. They should have a firm, solid appearance, as they are places of attachment and support for all the leading parts of the design.

XII. — PROGRESSIVE STEPS IN ELEMENTARY DESIGN.

RULE AND MEASURE EVERY LINE THAT CAN BE RULED AND MEASURED.

37. First select the geometrical form to be filled, — square, triangle, hexagon, &c.; next decide upon the subject to be used as an element, either from plant-forms or ornamental detail, — as ivy, anemone, or rose, &c., &c., — anthemion or lotus ornament, &c., &c.

38. Draw on common paper the geometrical figure to be filled; draw its diagonals, diameters, and any other lines to be used for construction that may seem necessary. Think of different combinations of the elements selected, and decide how arrangements of them may be made upon any of the construction-lines. As it would be necessary in English composition to first have an idea to express, and then to clothe it in words; so, in design-composition, similar reflection and care are necessary.

39. Draw one unit; that is, what will fill one-eighth of a square, one-twelfth of a hexagon, &c., &c.

40. Perhaps the first attempt will not be successful; but new trials can be made in similar spaces of the rough sketch. A professional designer *always* works in this way.

41. When the unit of design is ready to be repeated, prepare carefully in a drawing-book, or on suitable paper, a new geometrical figure like the one used in the rough draught; draw diagonals, diameters, and other construction-lines, VERY FAINTLY; and make in the figure thus prepared a careful free-hand drawing of the unit of design already composed.

42. Place upon the drawing a piece of tracing-paper. Draw with a ruler on the tracing-paper, *very accurately*, the axis of the unit designed, which is technically called, as it stands upon the tracing-paper, "the Registering-Line." Do not let the tracing-paper slip or move at all. Trace upon it with a soft pencil the figure designed.

43. The design can now be completed very perfectly, and with little work, — just as a hundred books can be easily printed from one set of plates. It will be seen, that to repeat the unit of design is now a printing process.

44. Place the side of the tracing-paper on which the drawing is on the adjoining space to be filled, and be very careful to make the registering-line and axis of the unit of design coincide.

45. There are several methods of impressing or printing the traced figure. The best way is to go over the drawing again with a soft pencil upon the clean side of the tracing-paper while it lies in position. When the tracing-paper is removed, a correct impression will be found upon the white paper. Continue this process until the entire figure is filled.

46. For the first tracing on each side of the tracing-paper a soft pencil should be used. In order to print a clear outline from the tracing, go over the outline on the tracing-paper with a *hard* pencil.

47. The whole design, after the impressions of the unit of design are all made, is to be nicely finished with a hard pencil; and all lines, in each system of lines, ought to be of the same thickness and tint. Construction-lines will not be noticed if they were drawn as directed in paragraph 41.

XIII. — DRAWING-MATERIALS.

48. In order to make good drawings for any kind of ornamentation, the very best materials, in the way of paper, pencils, &c., &c., should be upon the drawing-table of the designer. Any first-class dealer in artists' supplies will furnish qualities of good paper; but the matter of pencils to be used needs special consideration. Two kinds of first-rate pencils are absolutely necessary to the pupil who is expected to make good designs, — the first, a *soft* pencil, to be used for tracing upon the tracing-paper; the second, a hard one, for outlining forms, and for finishing. Good pencils — those that can be evenly cut, the grain of the wood running parallel to the lead, and the lead of such perfect quality as to have no brittleness whatever in it — are not easily found; and the author believes that a conscientious notice, in his book, of a thoroughly reliable grade of lead-pencils,

will be gladly received by artists, architects, engineers, &c., and by all who desire to use only the very best pencils that can be bought. The grades of pencils in constant use by the author of this work, and in every way recommended by him, are those bearing the registered trade-marks of the swan and the anchor, — GROSSBERGER & KURZ, Nürnberg, manufacturers; Rothe & Lips, New York, American agents. The swan pencil has sixteen grades of hardness, the anchor five grades; and all have received the very highest testimonials in their favor. They can be obtained from dealers in artists' supplies, and from stationers generally. The following marked pencils are particularly recommended for use in the branches of drawing required in the public schools: Anchor, B B, H B, H H, F; swan, 2 B, H B, F, 2 F, H, 3 H, 4 H.

49. Tracing-paper of the very best quality, and the best rubber that can be obtained, should always be used by the designer; and a good piece of yellow beeswax, for fastening tracing-paper to the drawing-paper (a bit of the wax of the size of a pin's head to be used for that purpose), is often necessary. A good "scale," with inch, half-inch, and quarter-inch marks on it, will be needed. The set square invented by Professor Walter Smith is the best one to use. A *sharp* knife, with a small file or piece of sand-paper, should also be found with other materials for designing.

XIV. — CONCLUSION.

50. And now, in the hope that I have at least partially removed difficulties that seem to have caused much anxiety on the part of teachers officially called upon to produce original designs from pupils, and trusting that new energies may be put forth by all concerned in studying design in the schools, with a few brief remarks I bring my labors to a close.

It is not to be wondered at that even the most accomplished teachers shrink from the task of attempting to obtain from pupils much in the way of elementary design that would be suitable for *any* purpose of decoration. The belief is pretty general among educators, that the power to produce truly artistic things is not inherent in all men, — is to be found, indeed, only in very few. Nevertheless, great things can be accomplished by pupils if the underlying principles of the art of design are faithfully taught.

But, to obtain satisfactory results in the class-room, pupils should be led carefully to see that the making of an original composition involves the conception of an end to be reached, willingness to study to reach the end, and a complete comprehension of the means at hand to secure it. It should be fully understood by the teacher, that the work of the pupil will be valueless if it contains no expression of *thoughtful* labor; if it cannot be so analyzed as to reveal some adaptation of powers, some

use of governing laws. Unvarying patience on the part of the teacher, together with constant encouragement to pupils, and many-times repeated black-board illustrations of large size explanatory of the work in hand, is absolutely necessary.

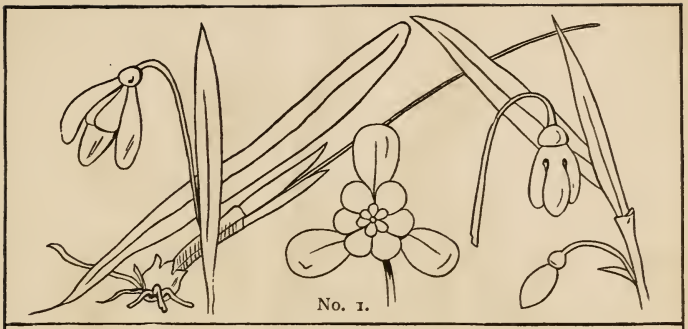
The teacher should not attempt too much at a time, but should lead the class by short, successive, and sure steps to the attainment of such work as will give each individual the deep satisfaction of having *done something* that will give pleasure to the eye, and so to the heart. To write a good English composition is a difficult task. Scholars fail both in ideas to express, and in the use of words to clothe, properly the thoughts they have; yet all teachers labor patiently to teach English composition. Drawing is a universal language. With the same untiring zeal, strive to teach pupils to express thoughts in it, and, indeed, to think in it.

The teacher should always remember, that to inspire a child or youth with even the smallest desire to lay hold on things calculated to increase in the mind a love for the beautiful is to be at once worthy of being named with that apostle who wrote, "Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any VIRTUE, and if any PRAISE, think on these things."

BOTANICAL ELEMENTS

FOR

DESIGNS.



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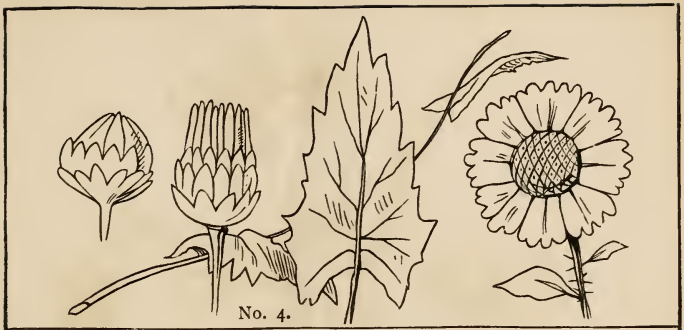

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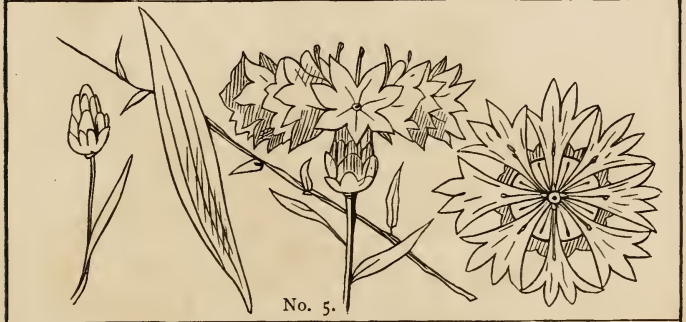

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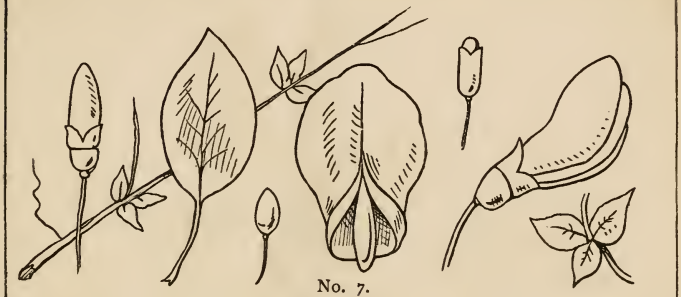

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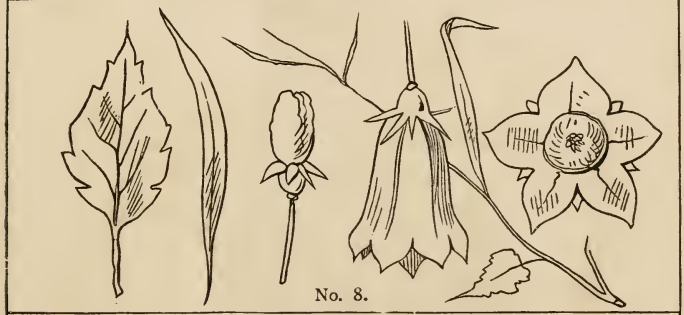

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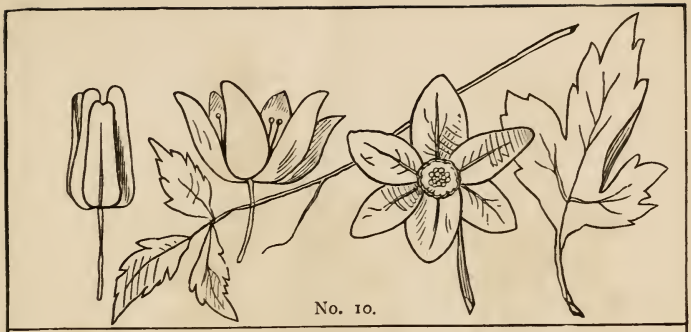

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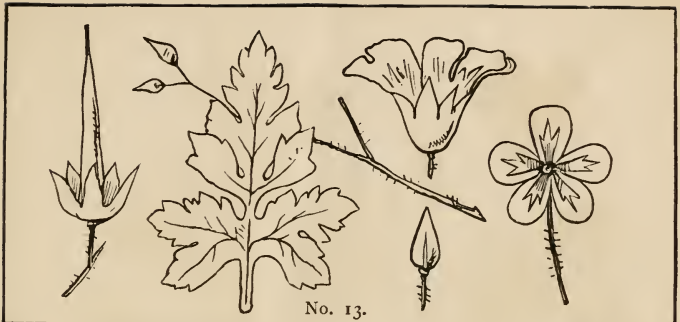

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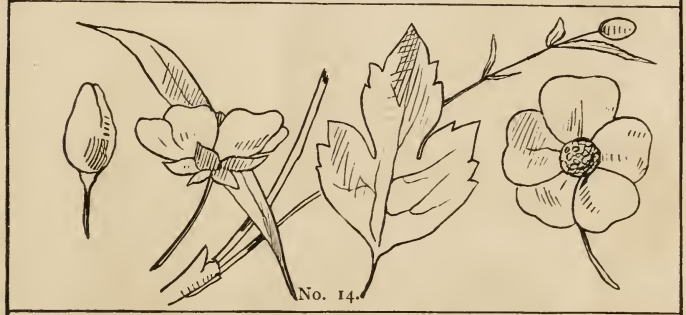

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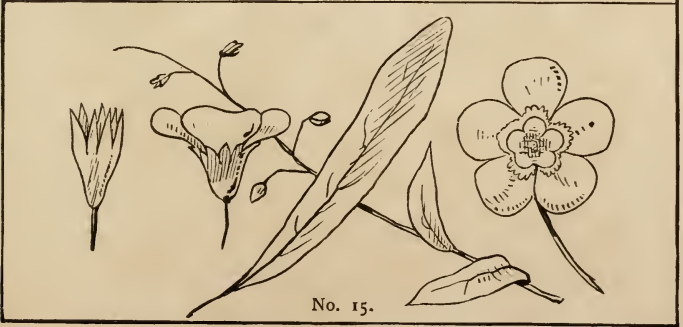

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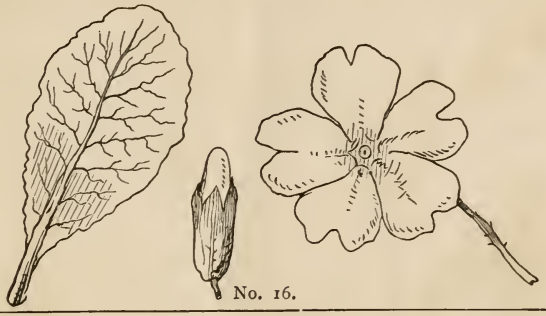

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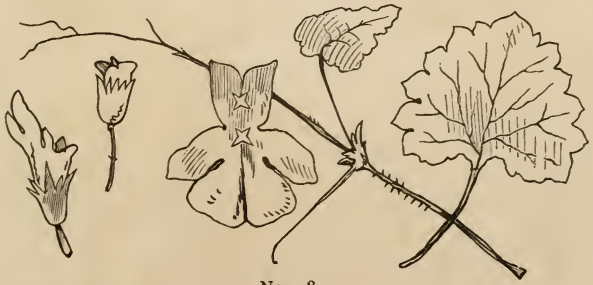

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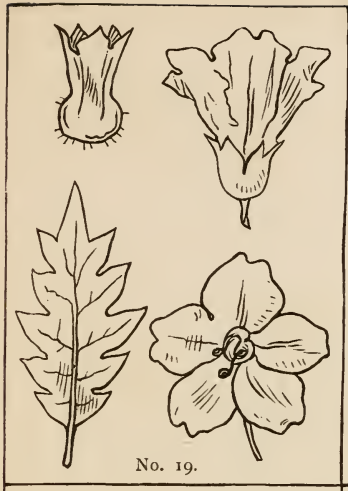

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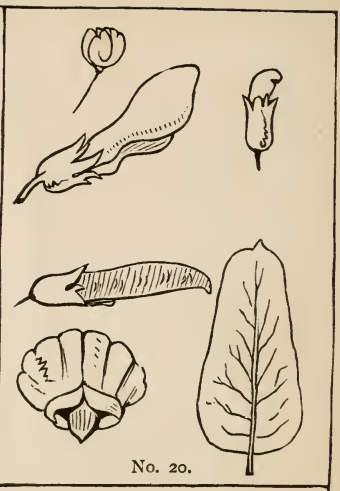

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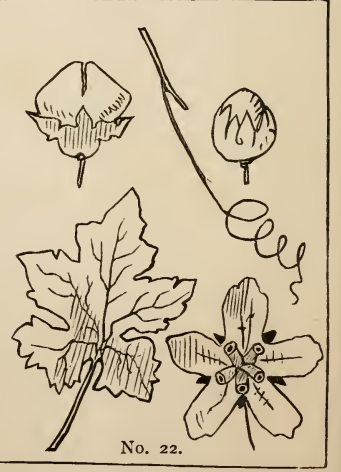

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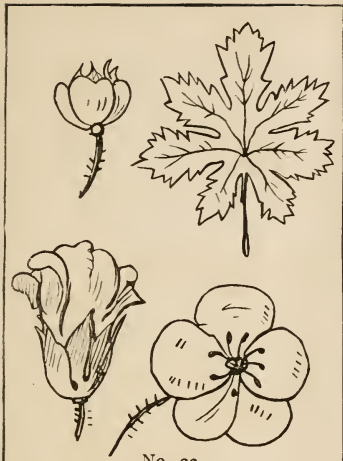

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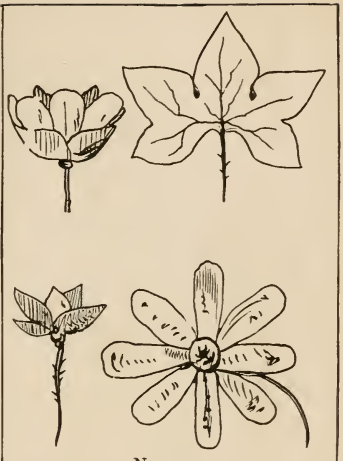

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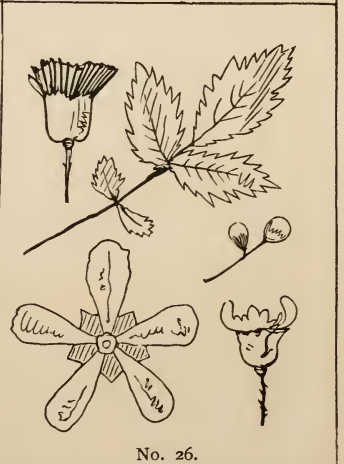

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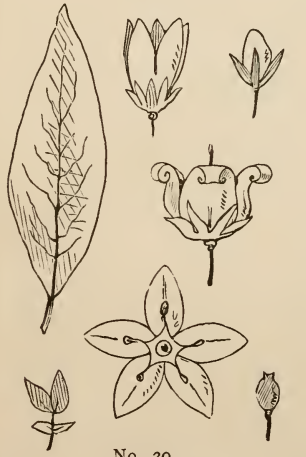

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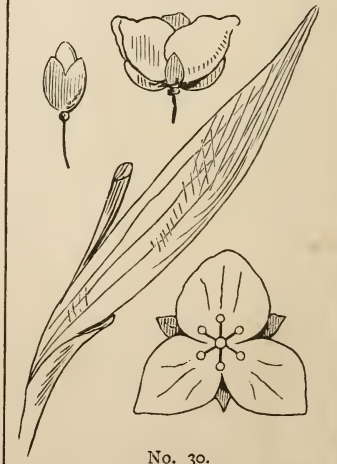

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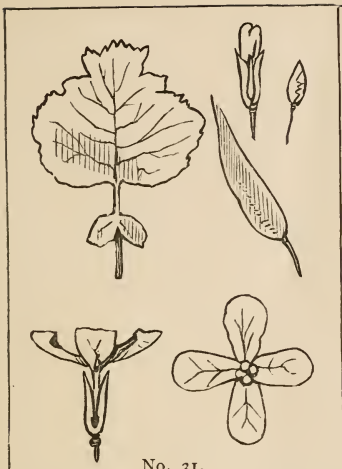

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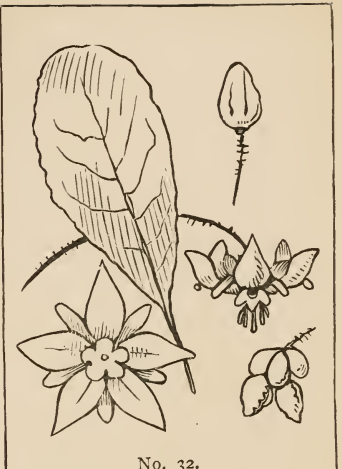

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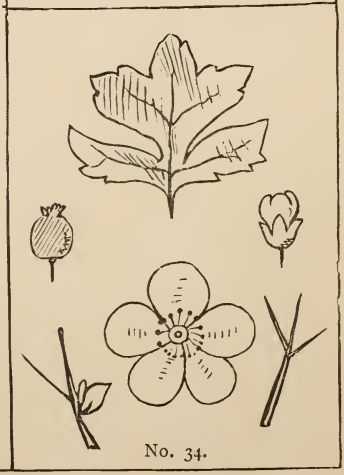

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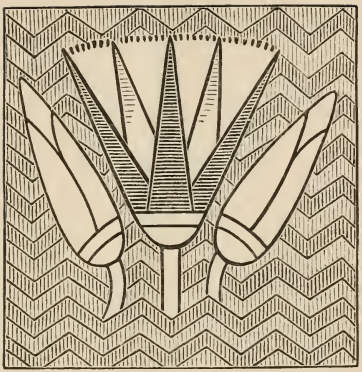

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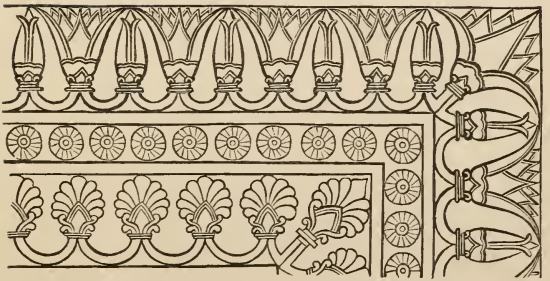

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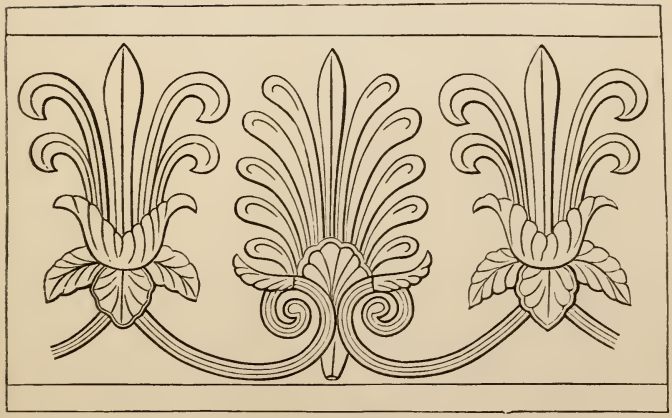

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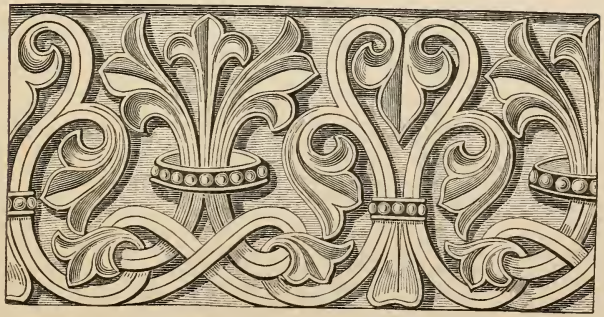

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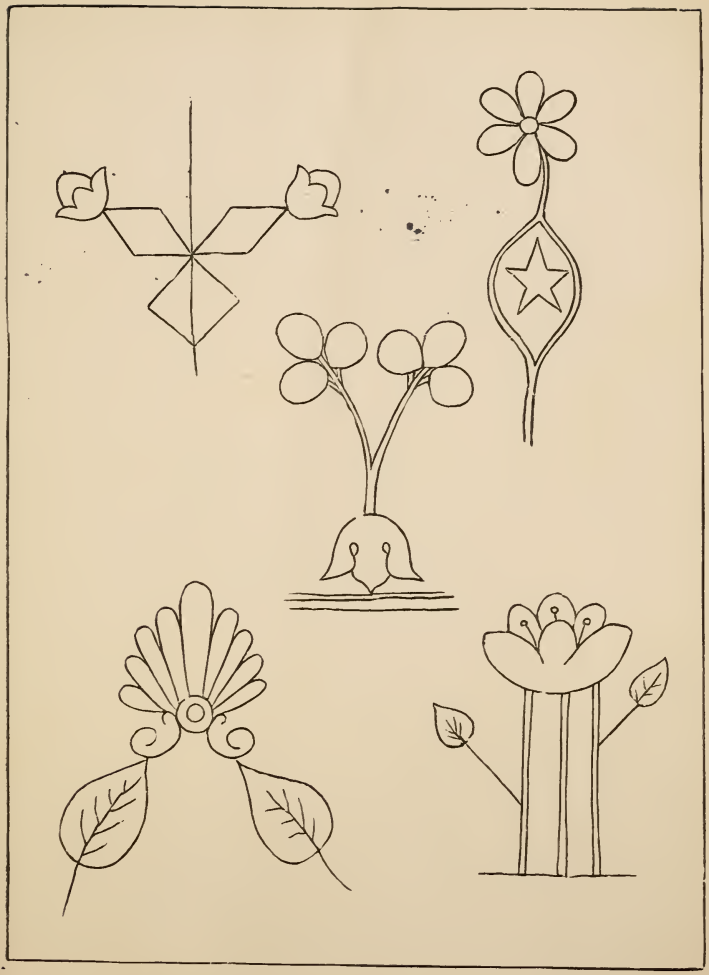
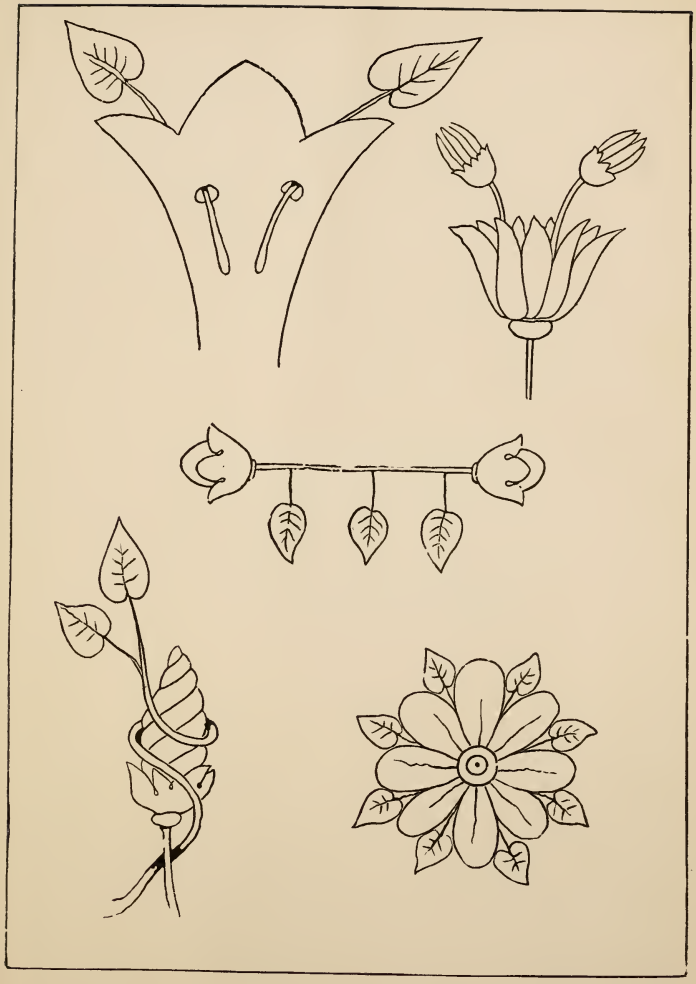
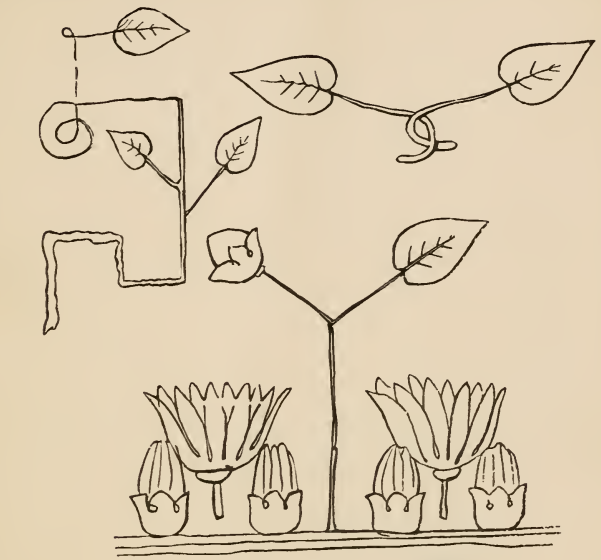
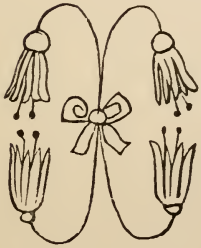
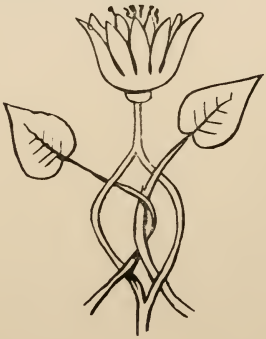
ERRORS IN DESIGN.











EXERCISES

IN

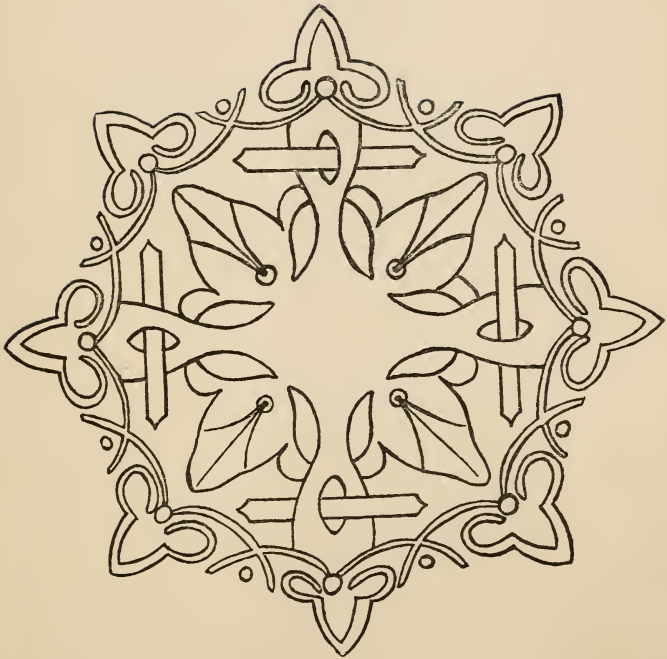
ORIGINAL COMPOSITION

NOT COMPLYING WITH THE

Laws of Elementary Design.

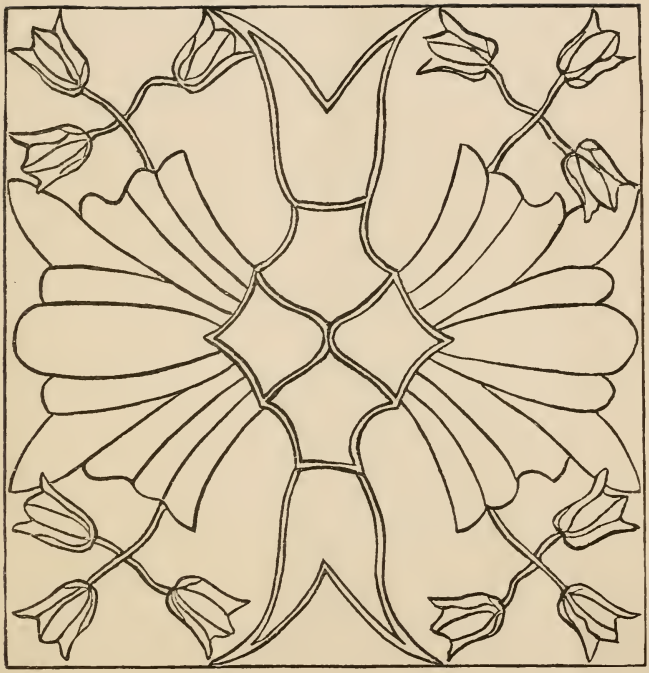
No. 1. — The parts of this composition are not properly connected.

No. 2. — In this design single flowers spring from leaves by double stems; leaves spring from buds, &c.



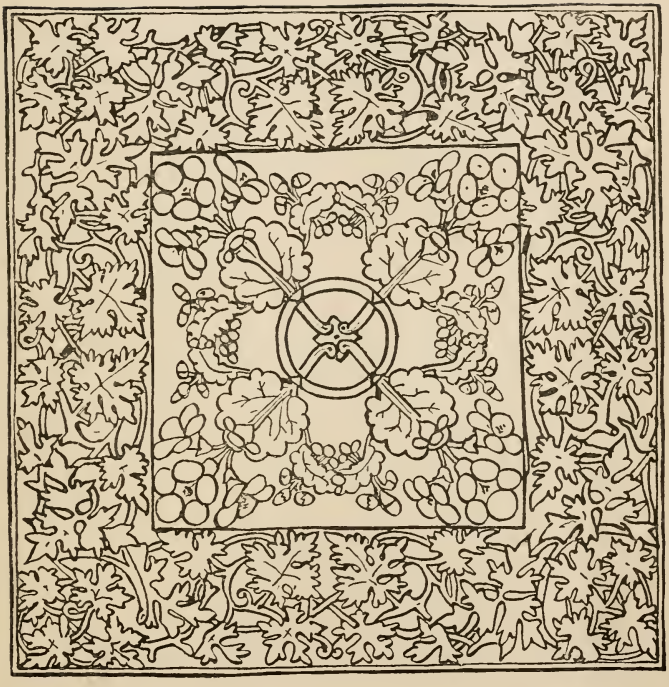
No. 3. — This design is greatly injured by the introduction of the bars that pierce it.

No. 4. — In this composition flowers are attached to both ends of stems.



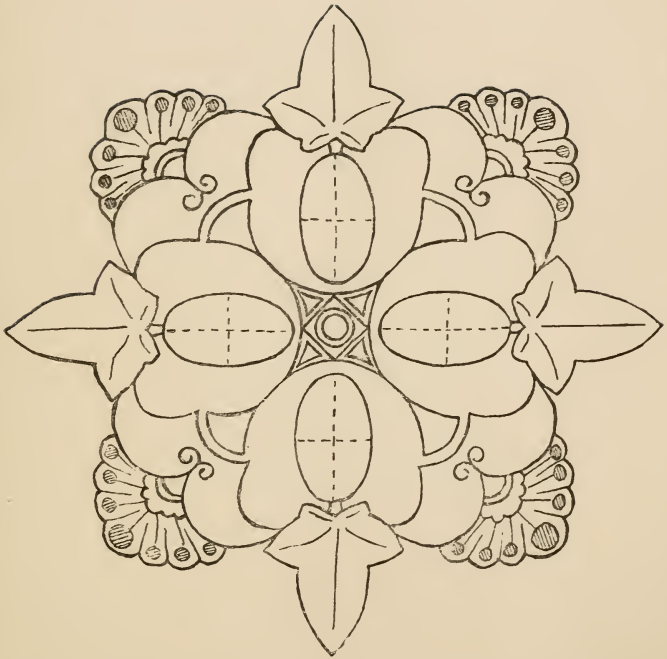
No. 5 — This composition is not in any way pleasing to the eye. It is incorrect, because flowers proceed from figures resembling historical ornament.

No. 6. — The principal fault of this design is, that parts of it have no connection with the centre: both unity and radiation are violated.



No. 7. — This design is valueless, because the detail is without character, and minute. It resembles a confused and unsuitable pattern for embroidery.

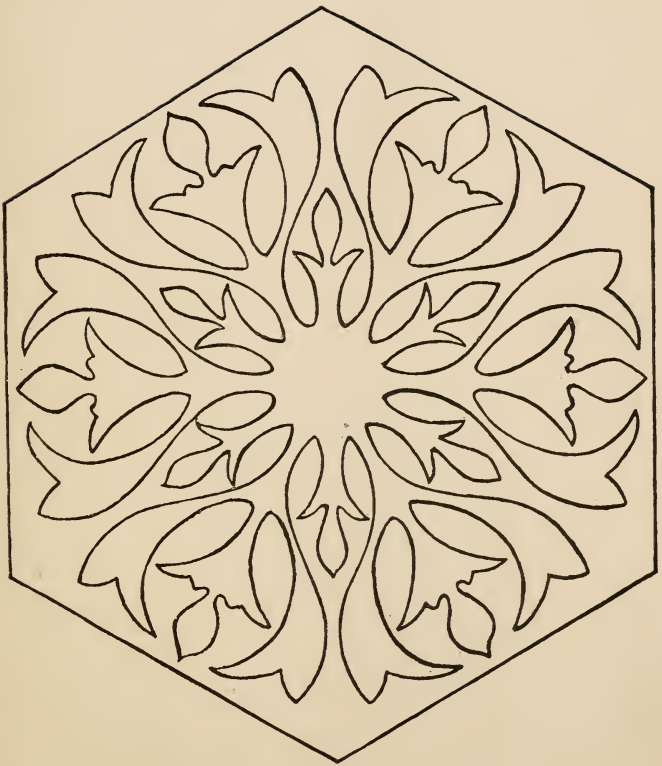
No. 8. — Leaves spring from flowers; flowers proceed from flowers.



No. 9. — This design is incorrect, because it is composed of leaves, geometrical figures, and historical ornament.

No. 10. — In this design three flowers proceed from two leaves, and there is manifestly a lack of harmonious union of parts at the centre.

No. 11. — In this composition pieces of leaves are entirely detached from the rest of the design, and complete leaves are united to the ends of stems.



No. 12. — This design does not appear to violate any law; but it does not altogether please the eye.

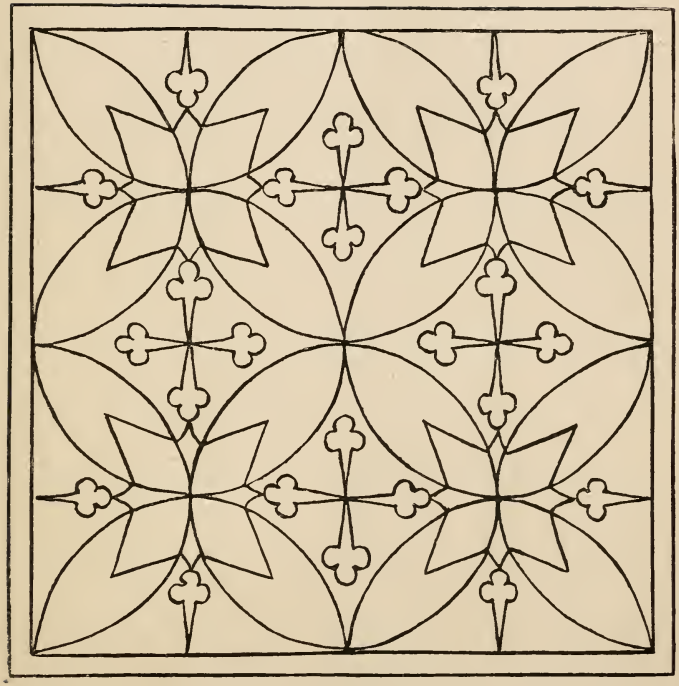
EXERCISES

IN

ORIGINAL COMPOSITION

COMPLYING WITH THE

Laws of Elementary Design.



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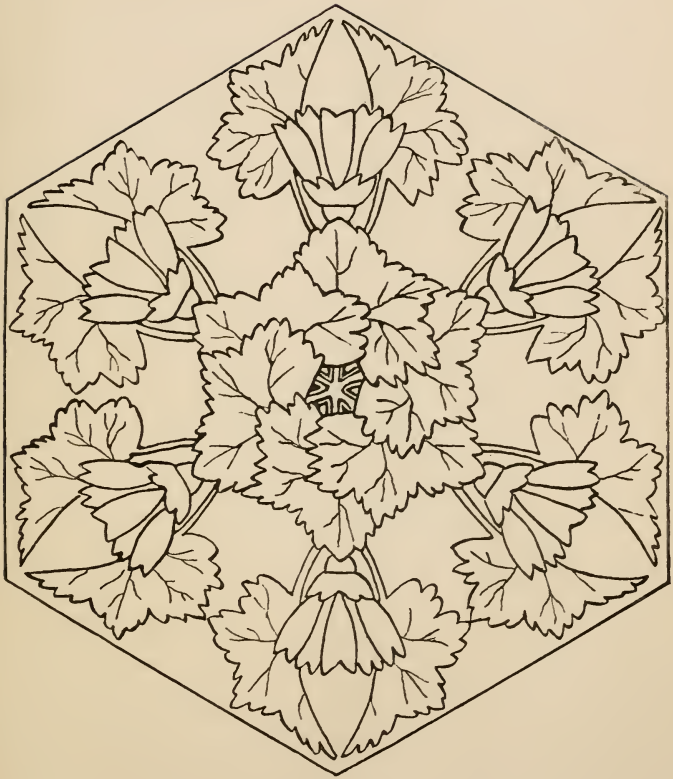

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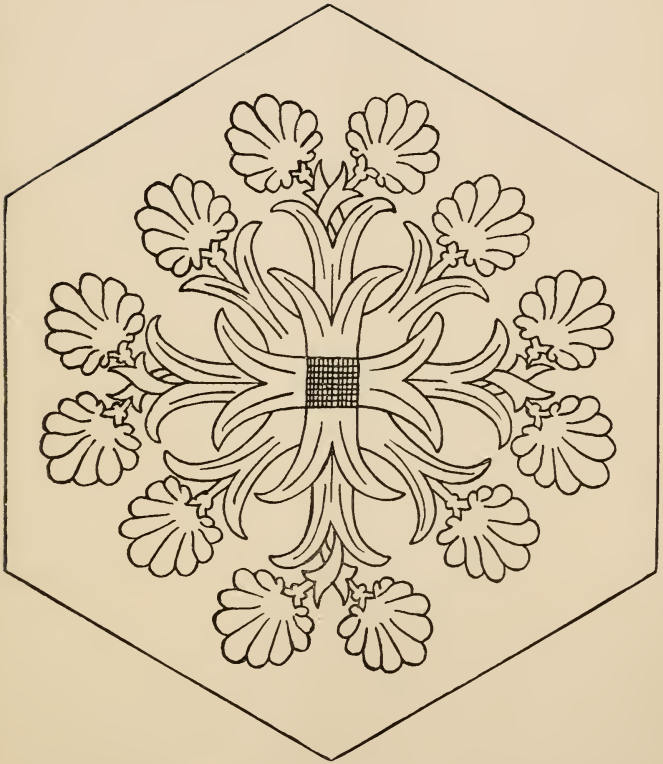

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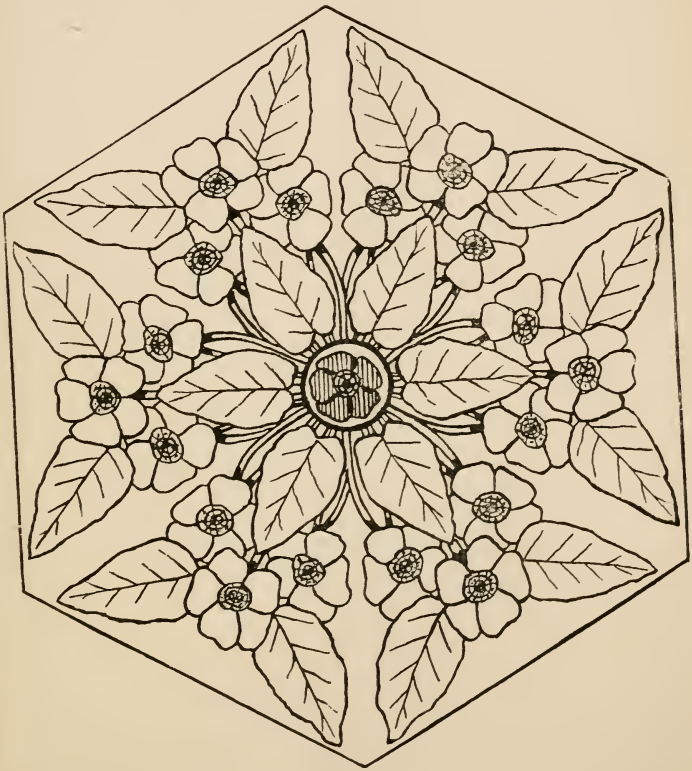

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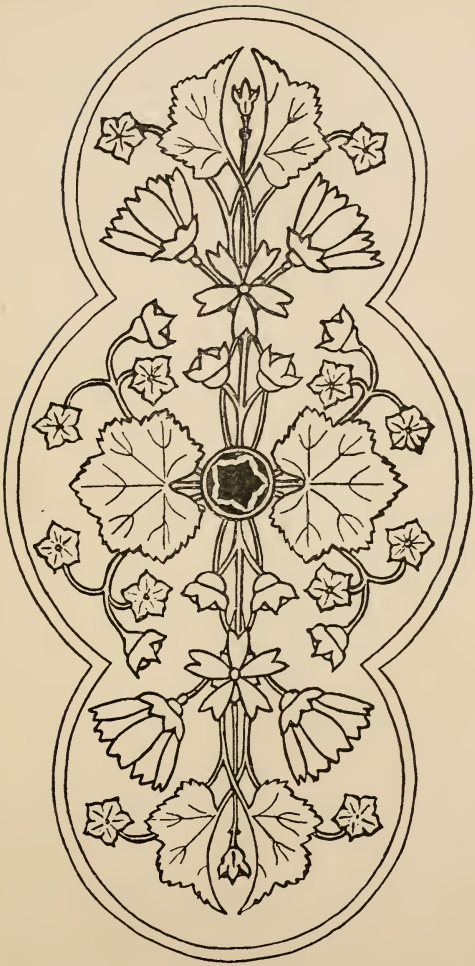

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